

Appl. No. : 09/869,182
Filed : May 21, 2002

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~procedure for processing~~ data objects ~~processing system~~, comprising: ~~with:~~

a data space, in which data objects are arranged;

a multi-dimensional information space that has at least two virtual dimensions and preferably also at least one third virtual dimension;

whereby said information space has in at least one dimension a large amount of discrete memory locations suitable to represent information objects;

whereby each of said information objects represent at least one information base-object and whereby each information base-object comprises at least the following properties:

at least one pointer data that is characteristic for the position of at least one data object in the data space; and

at least one property data for at least one virtual dimension of said information space;

wherein at least one set of instructions is provided with at least one instruction for the processing of said data object; and

~~wherein~~ at least one computing device controlled by at least one processor ~~is provided~~, with which said information object in said information space is identifiable, and by which the processing of said data object in accordance with said instruction set can be caused;

wherein said ~~procedure~~ processing system can be influenced by transferring at least one control vector comprising at least one address vector, whereby said address vector is characteristic for a position of one instruction set; and

wherein, upon transfer of a control vector and a pointer data, the following procedural steps are executed for the creation of an information object:

a) Separating said control vector into at least one address vector and one instruction vector in a separating device;

b) Call-up of an instruction set characterized by said instruction vector;

Appl. No. : 09/869,182
Filed : May 21, 2002

- c) Derivation of a property vector for a data object with said processor device;
 - d) Generation of an information object from said pointer data and said property vector with said processor device; and
 - e) Saving said information object in said information space.
2. (Currently Amended) The proceduresystem according to claim 1, wherein, at least one virtual dimension is hierarchically structured, whereby a position of an information object within the hierarchy is preferably defined by said property data of said information object.
3. (Currently Amended) The proceduresystem according to claim 1, wherein said information base object has at least one property data for substantially every virtual dimension, whereby for several virtual dimensions said property data can be represented as a property vector.
4. (Currently Amended) The proceduresystem according to claim 1, wherein said instruction set, of which there is at least one, is taken from a group of instruction sets, which comprise base, organization, request, creation, modification, searching, playback, representation, printing, generating, execution, control, interaction, calculation, evaluation, regulation, play instruction sets.
5. (canceled)
6. (Currently Amended) The proceduresystem according to claim 1, wherein said control vector comprises at least one instruction vector that is characteristic for at least one predefined instruction set.
7. (Currently Amended) The proceduresystem according to claim 1, wherein said control vector comprises at least one property vector, which characterizes at least one part of said information space.
8. (canceled)
9. (Currently Amended) The proceduresystem according to claim 1, wherein upon transfer of a control vector and a data object the following procedural steps are executed for the creation of an information object:

Appl. No. : 09/869,182
Filed : May 21, 2002

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;
 - b) Call-up of an instruction set that is characterized by said instruction vector;
 - c) Derivation of a property vector for said data object with said processor device;
 - d) Saving said data object in said data space and derivation of a pointer data;
 - e) Generation of an information object from said pointer and said property vector with said processor device;
 - e) Saving said information object in said information space.
10. (Currently Amended) The proceduresystem according to claim 1, wherein upon transfer of a control vector the following procedural steps are executed for locating an information object
- a) Separating said control vector into at least an address vector, at least an instruction vector and at least a property vector in a separating device;
 - b) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
 - c) Separating said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said the property data of said property vector;
 - d) Generation of an empty result list;
 - e) Execution of a search for information objects in said information space, which substantially have corresponding property vectors by comparing for substantially every virtual dimension said property data with said property data in said processing vector;
 - f) Addition of a reference to an information object to said result list, if substantially all said property data substantially correspond;

Appl. No. : 09/869,182
Filed : May 21, 2002

f) Generation and output of a result file substantially containing all elements of said result list.

11. (Currently Amended) The proceduresystem according to claim 1, further comprising a second computing device configured to control the at least one computing device, wherein

~~said procedure is executed on a first computing device, whereby a user can control said process from a second computing device that is connected with said first computing device via at least one data connection.~~

12. (Currently Amended) The proceduresystem according to claim 1, wherein said information space contains at least one virtual type dimension, whereby at least one type data about a type of corresponding data object is contained in said virtual type dimension for substantially every information object.

13. (Currently Amended) The proceduresystem according to claim 1, wherein for at least one information object at least one type data is derived from said pointer data of said data object, whereby in a separating device said pointer data of said data object is separated into name elements and said at least one type data is derived from at least one characteristic name element.

14. (Currently Amended) The proceduresystem according to claim 1, wherein for at least one information object at least one type data is derived from at least one part of the contents of said data object, whereby in said separating device at least a part of said contents of said data object is separated into content elements and said at least one type data is derived from at least one characteristic content element.

15. (Currently Amended) The proceduresystem according to claim 1, wherein at least one information object contains at least one further object data taken from a group of object data, which contains at least one data of time, generation, time interval, validity, frequency, owner, group, access right, read right, write right, modification right, execution data.

16. (Currently Amended) The proceduresystem according to claim 1, wherein

Appl. No. : 09/869,182
Filed : May 21, 2002

said object type of said data object is taken from a group of object types containing various known data formats types of text files, picture files, graphic files, spreadsheet files, CAD files, program files, audio files, video files.

17. (Currently Amended) The proceduresystem according to claim 1, wherein for at least one information object at least one description field is provided that is accessible via said information object, whereby said description field serves for receiving at least one characterizing data of said information object.
18. (Currently Amended) The proceduresystem according to claim 1, wherein an information object can have at least one connection to at least one further information object, thus enabling a navigation between connected information objects.
19. (Currently Amended) The proceduresystem according to claim 1, wherein for at least one information object, a content of at least one description field of said information object is separated in a separating device into at least one characteristic data, and at least one characteristic content data is defined.
20. (Currently Amended) The proceduresystem according to claim 1, wherein at least one first characteristic content data of an information object is compared, in a comparison device, with at least one second characteristic content data of at least one other information object, whereby on match of said first and second characteristic content data a connection of said information object to said other information object is generated.
21. (Currently Amended) The proceduresystem according to claim 1, wherein at least one virtual connection space is provided with at least two connection dimensions containing discrete memory locations, whereby said memory locations are created in such a way that said memory locations contain at least one connection data for characterizing at least unidirectional relationships between different information objects.
22. (Currently Amended) The proceduresystem according to claim 21, wherein said at least one virtual connection space has at least a two-dimensional connection table, whereby within at least one part of the rows, every row represents a different information object, and whereby, within at least one part of said columns, every column represents a different information object.
23. (Currently Amended) The proceduresystem according to claim 1, wherein

Appl. No. : 09/869,182
Filed : May 21, 2002

upon transfer of a control vector said following procedural steps for navigation in said information system are executed:

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;
- b) Derivation of a property vector from said control vector;
- c) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
- d) Separating of said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said property data of said property vector;
- e) Generation of an empty search list;
- f) Execution of a search for information objects in said information space, which substantially have corresponding property vectors, in which for substantially every virtual dimension said property data are compared to said property data in said processing vector;
- g) Addition of a reference to an information object to said search list, if substantially all said property data substantially match;
- h) Generation of an empty result list;
- i) Execution of a search for substantially every element of said search list according to information objects in said connection space, which is connected with said information object, that is represented by said element, in at least a unidirectional way;
- j) Addition of a reference to an information object to said result list, if at least one unidirectional connection exists;
- k) Creation and output of a result file, which substantially contains all said elements of said result list.

24. (Currently Amended) The proceduresystem according to claim 1, wherein at least one information object can include at least one information element, whereby said information element can represent at least one information object.

Appl. No. : 09/869,182
Filed : May 21, 2002

25. (Currently Amended) The ~~proceduresystem~~ according to claim 11, wherein said data connection is taken from a group of data connections containing data connections via telephone lines, radio, network, internet, cable, and virtual data connections.
26. (Currently Amended) The ~~proceduresystem~~ according to claim 25, wherein a connection protocol is used for controlling said data connection, wherein said connection protocol is taken from a group of connection protocols containing serial connections and connection protocols such as TCP/IP, UUCP, UDP, NETBIOS, NETBEUI.
27. (Currently Amended) The ~~proceduresystem~~ according to claim 1, wherein at least one protocol is used with said connection protocol, that contains interface protocols and service protocols such as http, ftp, ntp, smtp, pop, imap, OLE, ActiveX, COM, DCOM, RMI, ODBC, JINI, STEP, DTD, SQL, ADO, as well as standardizations according to CORBA.
28. (Currently Amended) The ~~proceduresystem~~ according to claim 1, wherein said data object is stored in said data sphere or in a database.
29. (Currently Amended) The ~~proceduresystem~~ according to claim 23, wherein for at least three virtual dimensions a virtual connection space is provided.
30. (Currently Amended) The ~~proceduresystem~~ according to claim 1, wherein at least one connection data contains a parameter relating to a connection intensity.
31. (canceled)
32. (canceled)
33. (Currently Amended) A ~~procedure for processing~~ data object processing system, comprising s with:
 - a data space, in which data objects are arranged;
 - a multi-dimensional information space that has at least two virtual dimensions and preferably also at least one third virtual dimension;
 - whereby said information space has in at least one dimension a large amount of discrete memory locations suitable to represent information objects;

Appl. No. : 09/869,182
Filed : May 21, 2002

whereby each of said information objects represent at least one information base-object and whereby each information base-object comprises at least the following properties:

at least one pointer data that is characteristic for the position of at least one data object in the data space; and

at least one property data for at least one virtual dimension of said information space;

wherein at least one set of instructions is provided with at least one instruction for the processing of said data object; and

~~wherein~~ at least one computing device controlled by at least one processor ~~is provided~~, with which said information object in said information space is identifiable, and by which the processing of said data object in accordance with said instruction set can be caused;

wherein said procedure-processing system can be influenced by transferring at least one control vector comprising at least one address vector, whereby said address vector is characteristic for a position of one instruction set; and

wherein, upon transfer of a control vector and a data object, the following procedural steps are executed for the creation of an information object:

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;
- b) Call-up of an instruction set that is characterized by said instruction vector;
- c) Derivation of a property vector for said data object with said processor device;
- d) Saving said data object in said data space and derivation of a pointer data;
- e) Generation of an information object from said pointer and said property vector with said processor device;
- f) Saving said information object in said information space.

34. (Currently Amended) The procedural system according to claim 33, wherein,

Appl. No. : 09/869,182
Filed : May 21, 2002

at least one virtual dimension is hierarchically structured, whereby a position of an information object within the hierarchy is preferably defined by said property data of said information object.

35. (Currently Amended) The proceduresystem according to claim 33, wherein said information base object has at least one property data for substantially every virtual dimension, whereby for several virtual dimensions said property data can be represented as a property vector.

36. (Currently Amended) The proceduresystem according to claim 33, wherein said instruction set, of which there is at least one, is taken from a group of instruction sets, which comprise base, organization, request, creation, modification, searching, playback, representation, printing, generating, execution, control, interaction, calculation, evaluation, regulation, play instruction sets.

37. (Currently Amended) The proceduresystem according to claim 33, wherein said control vector comprises at least one instruction vector that is characteristic for at least one predefined instruction set.

38. (Currently Amended) The proceduresystem according to claim 33, wherein said control vector comprises at least one property vector, which characterizes at least one part of said information space.

39. (Currently Amended) The proceduresystem according to claim 33, wherein upon transfer of a control vector the following procedural steps are executed for locating an information object

- a) Separating said control vector into at least an address vector, at least an instruction vector and at least a property vector in a separating device;
- b) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
- c) Separating said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said the property data of said property vector;
- d) Generation of an empty result list;

Appl. No. : 09/869,182
Filed : May 21, 2002

- e) Execution of a search for information objects in said information space, which substantially have corresponding property vectors by comparing for substantially every virtual dimension said property data with said property data in said processing vector;
- f) Addition of a reference to an information object to said result list, if substantially all said property data substantially correspond;
- g) Generation and output of a result file substantially containing all elements of said result list.

40. (Currently Amended) The procedure system according to claim 33, further comprising a second computing device configured to control the at least one computing device. wherein

~~said procedure is executed on a first computing device, whereby a user can control said process from a second computing device that is connected with said first computing device via at least one data connection.~~

41. (Currently Amended) The proceduresystem according to claim 33, wherein said information space contains at least one virtual type dimension, whereby at least one type data about a type of corresponding data object is contained in said virtual type dimension for substantially every information object.

42. (Currently Amended) The proceduresystem according to claim 33, wherein for at least one information object at least one type data is derived from said pointer data of said data object, whereby in a separating device said pointer data of said data object is separated into name elements and said at least one type data is derived from at least one characteristic name element.

43. (Currently Amended) The proceduresystem according to claim 33, wherein for at least one information object at least one type data is derived from at least one part of the contents of said data object, whereby in said separating device at least a part of said contents of said data object is separated into content elements and said at least one type data is derived from at least one characteristic content element.

44. (Currently Amended) The proceduresystem according to claim 33, wherein

Appl. No. : 09/869,182
Filed : May 21, 2002

at least one information object contains at least one further object data taken from a group of object data, which contains at least one data of time, generation, time interval, validity, frequency, owner, group, access right, read right, write right, modification right, execution data.

45. (Currently Amended) The proceduresystem according to claim 33, wherein said object type of said data object is taken from a group of object types containing various known data formats types of text files, picture files, graphic files, spreadsheet files, CAD files, program files, audio files, video files.
46. (Currently Amended) The proceduresystem according to claim 33, wherein for at least one information object at least one description field is provided that is accessible via said information object, whereby said description field serves for receiving at least one characterizing data of said information object.
47. (Currently Amended) The proceduresystem according to claim 33, wherein an information object can have at least one connection to at least one further information object, thus enabling a navigation between connected information objects.
48. (Currently Amended) The proceduresystem according to claim 33, wherein for at least one information object, a content of at least one description field of said information object is separated in a separating device into at least one characteristic data, and at least one characteristic content data is defined.
49. (Currently Amended) The proceduresystem according to claim 33, wherein at least one first characteristic content data of an information object is compared, in a comparison device, with at least one second characteristic content data of at least one other information object, whereby on match of said first and second characteristic content data a connection of said information object to said other information object is generated.
50. (Currently Amended) The proceduresystem according to claim 33, wherein at least one virtual connection space is provided with at least two connection dimensions containing discrete memory locations, whereby said memory locations are created in such a way that said memory locations contain at least one connection data for characterizing at least unidirectional relationships between different information objects.
51. (Currently Amended) The proceduresystem according to claim 50, wherein

Appl. No. : 09/869,182
Filed : May 21, 2002

said at least one virtual connection space has at least a two-dimensional connection table, whereby within at least one part of the rows, every row represents a different information object, and whereby, within at least one part of said columns, every column represents a different information object.

52. (Currently Amended) The proceduresystem according to claim 33, wherein upon transfer of a control vector said following procedural steps for navigation in said information system are executed:

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;
- b) Derivation of a property vector from said control vector;
- c) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
- d) Separating of said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said property data of said property vector;
- e) Generation of an empty search list;
- f) Execution of a search for information objects in said information space, which substantially have corresponding property vectors, in which for substantially every virtual dimension said property data are compared to said property data in said processing vector;
- g) Addition of a reference to an information object to said search list, if substantially all said property data substantially match;
- h) Generation of an empty result list;
- i) Execution of a search for substantially every element of said search list according to information objects in said connection space, which is connected with said information object, that is represented by said element, in at least a unidirectional way;
- j) Addition of a reference to an information object to said result list, if at least one unidirectional connection exists;

Appl. No. : 09/869,182
Filed : May 21, 2002

- k) Creation and output of a result file, which substantially contains all said elements of said result list.
53. (Currently Amended) The ~~proceduresystem~~ according to claim 33, wherein at least one information object can include at least one information element, whereby said information element can represent at least one information object.
54. (Currently Amended) The ~~proceduresystem~~ according to claim 40, wherein said data connection is taken from a group of data connections containing data connections via telephone lines, radio, network, internet, cable, and virtual data connections.
55. (Currently Amended) The ~~proceduresystem~~ according to claim 54, wherein a connection protocol is used for controlling said data connection, wherein said connection protocol is taken from a group of connection protocols containing serial connections and connection protocols such as TCP/IP, UUCP, UDP, NETBIOS, NETBEUI.
56. (Currently Amended) The ~~proceduresystem~~ according to claim 33, wherein at least one protocol is used with said connection protocol, that contains interface protocols and service protocols such as http, ftp, ntp, smtp, pop, imap, OLE, ActiveX, COM, DCOM, RMI, ODBC, JINI, STEP, DTD, SQL, ADO, as well as standardizations according to CORBA.
57. (Currently Amended) The ~~proceduresystem~~ according to claim 33, wherein said data object is stored in said data sphere or in a database.
58. (Currently Amended) The ~~proceduresystem~~ according to claim 52, wherein for at least three virtual dimensions a virtual connection space is provided.
59. (Currently Amended) The ~~proceduresystem~~ according to claim 33, wherein at least one connection data contains a parameter relating to a connection intensity.
60. (Currently Amended) A ~~procedure for processing~~ data object processing system, comprising:
a data space, in which data objects are arranged;

Appl. No. : 09/869,182
Filed : May 21, 2002

a multi-dimensional information space that has at least two virtual dimensions and preferably also at least one third virtual dimension;

whereby said information space has in at least one dimension a large amount of discrete memory locations suitable to represent information objects;

whereby each of said information objects represent at least one information base-object and whereby each information base-object comprises at least the following properties:

at least one pointer data that is characteristic for the position of at least one data object in the data space; and

at least one property data for at least one virtual dimension of said information space;

wherein at least one set of instructions is provided with at least one instruction for the processing of said data object; and

~~wherein~~ at least one computing device controlled by at least one processor ~~is provided~~, with which said information object in said information space is identifiable, and by which the processing of said data object in accordance with said instruction set can be caused;

wherein said procedure-processing system can be influenced by transferring at least one control vector comprising at least one address vector, whereby said address vector is characteristic for a position of one instruction set; and

wherein, upon transfer of a control vector, the following procedural steps are executed for locating an information object

- a) Separating said control vector into at least an address vector, at least an instruction vector and at least a property vector in a separating device;
- b) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
- c) Separating said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said the property data of said property vector;

Appl. No. : 09/869,182
Filed : May 21, 2002

- d) Generation of an empty result list;
 - e) Execution of a search for information objects in said information space, which substantially have corresponding property vectors by comparing for substantially every virtual dimension said property data with said property data in said processing vector;
 - f) Addition of a reference to an information object to said result list, if substantially all said property data substantially correspond; and
 - g) Generation and output of a result file substantially containing all elements of said result list.
61. (Currently Amended) The proceduresystem according to claim 60, wherein at least one virtual dimension is hierarchically structured, whereby a position of an information object within the hierarchy is preferably defined by said property data of said information object.
62. (Currently Amended) The proceduresystem according to claim 60, wherein said information base object has at least one property data for substantially every virtual dimension, whereby for several virtual dimensions said property data can be represented as a property vector.
63. (Currently Amended) The proceduresystem according to claim 60, wherein said instruction set, of which there is at least one, is taken from a group of instruction sets, which comprise base, organization, request, creation, modification, searching, playback, representation, printing, generating, execution, control, interaction, calculation, evaluation, regulation, play instruction sets.
64. (Currently Amended) The proceduresystem according to claim 60, wherein said control vector comprises at least one instruction vector that is characteristic for at least one predefined instruction set.
65. (Currently Amended) The proceduresystem according to claim 60, wherein said control vector comprises at least one property vector, which characterizes at least one part of said information space.

66. (Currently Amended) The procedure system according to claim 60, further comprising a second computing device configured to control the at least one computing device, wherein

~~said procedure is executed on a first computing device, whereby a user can control said process from a second computing device that is connected with said first computing device via at least one data connection.~~

67. (Currently Amended) The proceduresystem according to claim 60, wherein said information space contains at least one virtual type dimension, whereby at least one type data about a type of corresponding data object is contained in said virtual type dimension for substantially every information object.

68. (Currently Amended) The proceduresystem according to claim 60, wherein for at least one information object at least one type data is derived from said pointer data of said data object, whereby in a separating device said pointer data of said data object is separated into name elements and said at least one type data is derived from at least one characteristic name element.

69. (Currently Amended) The proceduresystem according to claim 60, wherein for at least one information object at least one type data is derived from at least one part of the contents of said data object, whereby in said separating device at least a part of said contents of said data object is separated into content elements and said at least one type data is derived from at least one characteristic content element.

70. (Currently Amended) The proceduresystem according to claim 60, wherein at least one information object contains at least one further object data taken from a group of object data, which contains at least one data of time, generation, time interval, validity, frequency, owner, group, access right, read right, write right, modification right, execution data.

71. (Currently Amended) The proceduresystem according to claim 60, wherein said object type of said data object is taken from a group of object types containing various known data formats types of text files, picture files, graphic files, spreadsheet files, CAD files, program files, audio files, video files.

72. (Currently Amended) The proceduresystem according to claim 60, wherein

for at least one information object at least one description field is provided that is accessible via said information object, whereby said description field serves for receiving at least one characterizing data of said information object.

73. (Currently Amended) The proceduresystem according to claim 60, wherein an information object can have at least one connection to at least one further information object, thus enabling a navigation between connected information objects.

74. (Currently Amended) The proceduresystem according to claim 60, wherein for at least one information object, a content of at least one description field of said information object is separated in a separating device into at least one characteristic data, and at least one characteristic content data is defined.

75. (Currently Amended) The proceduresystem according to claim 60, wherein at least one first characteristic content data of an information object is compared, in a comparison device, with at least one second characteristic content data of at least one other information object, whereby on match of said first and second characteristic content data a connection of said information object to said other information object is generated.

76. (Currently Amended) The proceduresystem according to claim 60, wherein at least one virtual connection space is provided with at least two connection dimensions containing discrete memory locations, whereby said memory locations are created in such a way that said memory locations contain at least one connection data for characterizing at least unidirectional relationships between different information objects.

77. (Currently Amended) The proceduresystem according to claim 76, wherein said at least one virtual connection space has at least a two-dimensional connection table, whereby within at least one part of the rows, every row represents a different information object, and whereby, within at least one part of said columns, every column represents a different information object.

78. (Currently Amended) The proceduresystem according to claim 60, wherein upon transfer of a control vector said following procedural steps for navigation in said information system are executed:

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;

Appl. No. : 09/869,182
Filed : May 21, 2002

- b) Derivation of a property vector from said control vector;
 - c) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
 - d) Separating of said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said property data of said property vector;
 - e) Generation of an empty search list;
 - f) Execution of a search for information objects in said information space, which substantially have corresponding property vectors, in which for substantially every virtual dimension said property data are compared to said property data in said processing vector;
 - g) Addition of a reference to an information object to said search list, if substantially all said property data substantially match;
 - h) Generation of an empty result list;
 - i) Execution of a search for substantially every element of said search list according to information objects in said connection space, which is connected with said information object, that is represented by said element, in at least a unidirectional way;
 - j) Addition of a reference to an information object to said result list, if at least one unidirectional connection exists;
 - k) Creation and output of a result file, which substantially contains all said elements of said result list.
79. (Currently Amended) The proceduresystem according to claim 60, wherein at least one information object can include at least one information element, whereby said information element can represent at least one information object.
80. (Currently Amended) The proceduresystem according to claim 66, wherein said data connection is taken from a group of data connections containing data connections via telephone lines, radio, network, internet, cable, and virtual data connections.

Appl. No. : 09/869,182
Filed : May 21, 2002

81. (Currently Amended) The proceduresystem according to claim 80, wherein a connection protocol is used for controlling said data connection, wherein said connection protocol is taken from a group of connection protocols containing serial connections and connection protocols such as TCP/IP, UUCP, UDP, NETBIOS, NETBEUI.
82. (Currently Amended) The proceduresystem according to claim 60, wherein at least one protocol is used with said connection protocol, that contains interface protocols and service protocols such as http, ftp, ntp, smtp, pop, imap, OLE, ActiveX, COM, DCOM, RMI, ODBC, JINI, STEP, DTD, SQL, ADO, as well as standardizations according to CORBA.
83. (Currently Amended) The proceduresystem according to claim 60, wherein said data object is stored in said data sphere or in a database.
84. (Currently Amended) The proceduresystem according to claim 78, wherein for at least three virtual dimensions a virtual connection space is provided.
85. (Currently Amended) The proceduresystem according to claim 60, wherein at least one connection data contains a parameter relating to a connection intensity.
86. (Currently Amended) A procedure for processing data object processing system, comprising:
s-with:
 - a data space, in which data objects are arranged;
 - a multi-dimensional information space that has at least two virtual dimensions and preferably also at least one third virtual dimension;
 - whereby said information space has in at least one dimension a large amount of discrete memory locations suitable to represent information objects;
 - whereby each of said information objects represent at least one information base-object and whereby each information base-object comprises at least the following properties:
 - at least one pointer data that is characteristic for the position of at least one data object in the data space; and

Appl. No. : 09/869,182
Filed : May 21, 2002

at least one property data for at least one virtual dimension of said information space;

wherein at least one set of instructions is provided with at least one instruction for the processing of said data object; and

~~wherein~~—at least one computing device controlled by at least one processor—is provided, with which said information object in said information space is identifiable, and by which the processing of said data object in accordance with said instruction set can be caused;

wherein said procedure-processing system can be influenced by transferring at least one control vector comprising at least one address vector, whereby said address vector is characteristic for a position of one instruction set; and

wherein, upon transfer of a control vector, said following procedural steps for navigation in said information system are executed:

- a) Separating said control vector into at least an address vector and at least an instruction vector in a separating device;
- b) Derivation of a property vector from said control vector;
- c) Generation of a processing vector with predefined property data for substantially every virtual dimension in said processor device;
- d) Separating of said property vector in said processor device into said property data for said virtual dimensions, contained in said property vector, and overwriting said property data of said processing vector with said property data of said property vector;
- e) Generation of an empty search list;
- f) Execution of a search for information objects in said information space, which substantially have corresponding property vectors, in which for substantially every virtual dimension said property data are compared to said property data in said processing vector;
- g) Addition of a reference to an information object to said search list, if substantially all said property data substantially match;
- h) Generation of an empty result list;

Appl. No. : 09/869,182
Filed : May 21, 2002

- i) Execution of a search for substantially every element of said search list according to information objects in said connection space, which is connected with said information object, that is represented by said element, in at least a unidirectional way;
 - j) Addition of a reference to an information object to said result list, if at least one unidirectional connection exists; and
 - k) Creation and output of a result file, which substantially contains all said elements of said result list.
87. (Currently Amended) The proceduresystem according to claim 86, wherein at least one virtual dimension is hierarchically structured, whereby a position of an information object within the hierarchy is preferably defined by said property data of said information object.
88. (Currently Amended) The proceduresystem according to claim 86, wherein said information base object has at least one property data for substantially every virtual dimension, whereby for several virtual dimensions said property data can be represented as a property vector.
89. (Currently Amended) The proceduresystem according to claim 86, wherein said instruction set, of which there is at least one, is taken from a group of instruction sets, which comprise base, organization, request, creation, modification, searching, playback, representation, printing, generating, execution, control, interaction, calculation, evaluation, regulation, play instruction sets.
90. (Currently Amended) The proceduresystem according to claim 86, wherein said control vector comprises at least one instruction vector that is characteristic for at least one predefined instruction set.
91. (Currently Amended) The proceduresystem according to claim 86, wherein said control vector comprises at least one property vector, which characterizes at least one part of said information space.
92. (Currently Amended) The proceduresystem according to claim 86, further comprising a second computing device configured to control the at least one computing device.
wherein

Appl. No. : 09/869,182
Filed : May 21, 2002

~~said procedure is executed on a first computing device, whereby a user can control said process from a second computing device that is connected with said first computing device via at least one data connection.~~

93. (Currently Amended) The proceduresystem according to claim 86, wherein said information space contains at least one virtual type dimension, whereby at least one type data about a type of corresponding data object is contained in said virtual type dimension for substantially every information object.

94. (Currently Amended) The proceduresystem according to claim 86, wherein for at least one information object at least one type data is derived from said pointer data of said data object, whereby in a separating device said pointer data of said data object is separated into name elements and said at least one type data is derived from at least one characteristic name element.

95. (Currently Amended) The proceduresystem according to claim 86, wherein for at least one information object at least one type data is derived from at least one part of the contents of said data object, whereby in said separating device at least a part of said contents of said data object is separated into content elements and said at least one type data is derived from at least one characteristic content element.

96. (Currently Amended) The proceduresystem according to claim 86, wherein at least one information object contains at least one further object data taken from a group of object data, which contains at least one data of time, generation, time interval, validity, frequency, owner, group, access right, read right, write right, modification right, execution data.

97. (Currently Amended) The proceduresystem according to claim 86, wherein said object type of said data object is taken from a group of object types containing various known data formats types of text files, picture files, graphic files, spreadsheet files, CAD files, program files, audio files, video files.

98. (Currently Amended) The proceduresystem according to claim 86, wherein for at least one information object at least one description field is provided that is accessible via said information object, whereby said description field serves for receiving at least one characterizing data of said information object.

Appl. No. : 09/869,182
Filed : May 21, 2002

99. (Currently Amended) The proceduresystem according to claim 86, wherein an information object can have at least one connection to at least one further information object, thus enabling a navigation between connected information objects.
100. (Currently Amended) The proceduresystem according to claim 86, wherein for at least one information object, a content of at least one description field of said information object is separated in a separating device into at least one characteristic data, and at least one characteristic content data is defined.
101. (Currently Amended) The proceduresystem according to claim 86, wherein at least one first characteristic content data of an information object is compared, in a comparison device, with at least one second characteristic content data of at least one other information object, whereby on match of said first and second characteristic content data a connection of said information object to said other information object is generated.
102. (Currently Amended) The proceduresystem according to claim 86, wherein at least one virtual connection space is provided with at least two connection dimensions containing discrete memory locations, whereby said memory locations are created in such a way that said memory locations contain at least one connection data for characterizing at least unidirectional relationships between different information objects.
103. (Currently Amended) The proceduresystem according to claim 102, wherein said at least one virtual connection space has at least a two-dimensional connection table, whereby within at least one part of the rows, every row represents a different information object, and whereby, within at least one part of said columns, every column represents a different information object.
104. (Currently Amended) The proceduresystem according to claim 86, wherein at least one information object can include at least one information element, whereby said information element can represent at least one information object.
105. (Currently Amended) The proceduresystem according to claim 92, wherein said data connection is taken from a group of data connections containing data connections via telephone lines, radio, network, internet, cable, and virtual data connections.
106. (Currently Amended) The proceduresystem according to claim 105, wherein

Appl. No. : **09/869,182**
Filed : **May 21, 2002**

a connection protocol is used for controlling said data connection, wherein said connection protocol is taken from a group of connection protocols containing serial connections and connection protocols such as TCP/IP, UUCP, UDP, NETBIOS, NETBEUI.

107. (Currently Amended) The proceduresystem according to claim 86, wherein at least one protocol is used with said connection protocol, that contains interface protocols and service protocols such as http, ftp, ntp, smtp, pop, imap, OLE, ActiveX, COM, DCOM, RMI, ODBC, JINI, STEP, DTD, SQL, ADO, as well as standardizations according to CORBA.
108. (Currently Amended) The proceduresystem according to claim 86, wherein said data object is stored in said data sphere or in a database.
109. (Currently Amended) The proceduresystem according to claim 86, wherein for at least three virtual dimensions a virtual connection space is provided.
110. (Currently Amended) The proceduresystem according to claim 86, wherein at least one connection data contains a parameter relating to a connection intensity.